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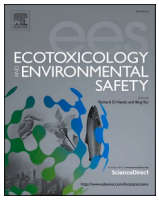

Editorial

Toxicology and environmental chemistry of halogenated organic pollutants

Halogenated organic pollutants includes intentionally synthesized chemicals and unintentional byproducts formed during many anthropogenic activities. Many halogenated organic pollutants are highly toxic and ubiquitous across all environment compartments. Environmental behaviors and toxicology of halogenated organic pollutants has always attracted public attention. Moreover, more and more new halogenated organic pollutants are found to be harmful to the environment and human health. Many halogenated organic pollutants have been regulated by international treaties such as Stockholm Convention. Their toxicities, environmental behaviors and human exposure pathways need long-term monitoring and tracking studies. Knowledge about their toxicity mechanisms, environmental behaviors, and human exposure pathways need to be comprehensively studied and clarified for a better control and regulation for their release into environment.

This special issue *Toxicology and Environmental Chemistry of Halogenated Organic Pollutants* focuses on the studies associated with the toxicology and environmental behavior of halogenated organic pollutants. The topics include, but not limited to, advanced analytical methods, toxicity mechanisms, environmental behavior, human exposure, source apportionment. Studies associated with formation mechanisms, inhibition and control techniques, regulation and policy analysis of halogenated organic pollutants are also included in this special issue.

This special issue includes over 55 papers with halogenated organic pollutants as their focus. The authors were from research institutes and universities across the world. The accepted studies span topics pertinent to sensitive analytical techniques for target organic pollutants, environmental concentrations across media, profiles and behaviors of dioxins, dioxin-like compounds, organochlorine pesticides (OCPs), flame retardants, perfluoroalkyl substances, polyhalogenated carbazoles, polycyclic aromatic hydrocarbons and their chlorinated derivatives and so on. The toxicity mechanisms and risk assessment of methyl-triclosan, BDE-47, pharmaceutical and personal care product ingredients (PPCPs), organic ultraviolet (UV) filters and so on were also reported in this special issue. Emerging environmental pollutants, such as environmentally persistent free radicals in airborne particles, were also included focusing on their occurrence, exposure and risks. This special issue has also published a few review articles, such as a review paper which comprehensively summarizes the occurrence of persistent organic pollutants in a lake ecosystem. Several studies regarding the emission levels, formation mechanisms, and control techniques and measures for unintentionally produced halogenated organic pollutants from industrial sources in developing countries have also been included. It is expected that this special issue could provide an interesting collection of studies associated with the toxicology and environmental chemistry of halogenated organic pollutants. We also hope this special issue could inspire further studies toward a better understanding of the potential adverse effects of halogenated organic pollutants, controlling and regulating their source emissions, and thus reducing their potential exposure and risks in the future.

We sincerely appreciate all the authors, anonymous reviewers and the publishers, who made great contributions to this special issue of halogenated organic pollutants. We also would like express our thanks to the editors of Ecotoxicology and Environmental Safety (EES), and particularly professor Bing YAN, for his great supports to us for organizing this special issue.

Guorui Liu[a,b,c,*], Andrew Sweetman[d], Simon Wan Chan[e], Mohammednoor Altarawneh[f,g]

[a] *State Key Laboratory of Environmental Chemistry and Ecotoxicology, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing 100085, PR China*

[b] *School of environment, Hangzhou Institute for Advanced Study, UCAS, Hangzhou 310000, PR China*

[c] *College of Resource and Environment, University of Chinese Academy of Sciences, Beijing 100049, PR China*

[d] *Lancaster Environment Centre, Lancaster University, LA1 4YQ, UK*

[e] *Department of Chemistry, Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, Hong Kong, China*

[f] *Department of Chemistry and Physics, Murdoch University, Westren Australia, Murdoch, WA 6150, Australia*

[g] *Department of Chemical and Petroleum Engineering, United Arab Emirates University, Sheikh Khalifa bin Zayed Street, Al-Ain 15551, United Arab Emirates*

[*] Corresponding author at: State Key Laboratory of Environmental Chemistry and Ecotoxicology, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing 100085, PR China.
E-mail address: grliu@rcees.ac.cn (G. Liu).

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